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EXAMINER	
ALIA, CURTIS A	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/790,204	Applicant(s) SAVAGE ET AL.	
	Examiner Curtis A. Alia	Art Unit 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 October 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23,26,27 and 30-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23,26,27 and 30-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicant's amendment filed 20 October 2008 has been entered. The amendments to the Specification are accepted. Claims 1-9, 11-19, 21-23, 26-27, and 31-38 have been amended. Claims 1-40 are still pending in this application, with claims 1, 11, 21 and 31 being independent.

Response to Arguments

1. Applicant's arguments with respect to claims 1, 11, 21 and 31 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-6, 10-16, 20-23, 26, 30-36 and 40-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enhanced Interior Gateway Routing Protocol White Paper (previously cited Cisco, Published Feb. 12, 2003, hereinafter referred to as EIGRP White Paper) in view of Garcia-Luna-Aceves '720 (newly cited US 2002/0067720), Yamato et al. (previously cited US 5,694,390) and de Boer et al. (previously cited US 2004/0221058).

Regarding claim 1, EIGRP White Paper discloses a method in a router comprising identifying by the router an active path connected to the router based on active links each

connecting the router to a first neighboring router (see pages 2-3, EIGRP router builds a topology table from its neighbors' advertisements to determine an active path from the links available), monitoring by the router prescribed attributes of the active path, the active path providing reachability by the router to a destination via the first neighboring router (see page 3, neighbor discovery and maintenance, the router waits for changes to the active path, thus monitoring the active paths) and outputting by the router an update message, specifying the change, to a second router according to the routing protocol (see Neighbor Discovery and Maintenance, the EIGRP router sends a routing update message when a change is detected in the path).

EIGRP White Paper does not explicitly teach detecting by the router a change in at least one of the prescribed attributes of the connected active path.

However, the above-mentioned claimed limitation is well known in the art, as evidenced by Garcia-Luna-Aceves. In particular, Garcia-Luna-Aceves teaches detecting by the router a change in at least one of the prescribed attributes of the connected active path (see paragraph 32, lines 12-14, nodes detect changes in the links/paths).

In view of the above, having the method of EIGRP White Paper, then given the well-established teaching of Garcia-Luna-Aceves, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the method of EIGRP White Paper as taught by Garcia-Luna-Aceves, since Garcia-Luna-Aceves stated in paragraph 14 that loop-free multipaths would be constructed while giving collision free communications.

EIGRP White Paper and Garcia-Luna-Aceves do not explicitly teach that the change is distinct from and not changing an availability of the active path.

However, the above-mentioned claimed limitation is well known in the art, as evidenced by Yamato. In particular, Yamato teaches that the change is distinct from and not changing an availability of the active path (see column 2, lines 5-13, data flow is monitored against monitoring parameters to detect congestion on the data flow, and congestion does not indicate failure of a node which would be a parameter change not changing the availability of the active path/flow).

In view of the above, having the method of EIGRP White Paper and Garcia-Luna-Aceves, then given the well-established teaching of Yamato, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the method of EIGRP White Paper and Garcia-Luna-Aceves as taught by Yamato, since Yamato stated in column 1, lines 55-58 that service level is maintained for high priority services.

EIGRP White Paper, Garcia-Luna-Aceves and Yamato do not explicitly teach that the active links are at least first and second active links.

However, the above-mentioned claimed limitation is well known in the art, as evidenced by de Boer. In particular, de Boer teaches that the active links are at least first and second active links (see figure 1 and paragraph14, there are multiple links (i.e. 1:1 or 1:n protection links) connecting two nodes to each other).

In view of the above, having the method of EIGRP White Paper, Garcia-Luna-Aceves and Yamato, then given the well-established teaching of de Boer, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the method of EIGRP White Paper, Garcia-Luna-Aceves and Yamato as taught by de Boer, since de Boer stated that improved mesh network performance can be performed. Note that while de Boer

teaches protection switching in response to failure of a link, the same method can be performed based on attributes of the link rather than availability of the link, as taught by Garcia-Luna-Aceves and Yamato in the combination above.

Regarding claim 2, EIGRP White Paper discloses that the identifying step includes associating the first active link connected to the router to the active path based on determining that the destination is reachable by the first active link (see page 3, paragraph 2, a router can determine at least one active path to the destination through another router), and storing in a topology table an entry that specifies the destination and a corresponding at least one interface identifier for the first active link (see page 5, building topology table, each reachable network has an entry in the router's topology table including various metrics to identify the properties of that path).

Regarding claim 3, EIGRP White Paper discloses that the identifying step further includes associating the second active link connected to the router to the active path based on determining that the destination is concurrently reachable by the first active link and the second active link (see page 3, paragraph 2, the best path is referred to as the successor, and another loop-free path is referred to as a feasible successor), determining that the first active link and the second active link are configured for enabling aggregation (see page 3, paragraph 2, EIGRP router builds the topology table to collect the routing information from its neighbors), aggregating at least selected ones of the prescribed attributes of the first active link and the second active link for the respective selected ones of the prescribed attributes of the active path

(see page 3, paragraph 2, the EIGRP router saves the information it received from both routers connected to each path, thus aggregating their attributes and saving this information for later use), and storing in the entry in the topology table the prescribed attributes of the active path, and adding a second entry that specifies the destination, the interface identifier for the second active link, and the prescribed attributes of the active path (see pages 5-6, building topology table, various attributes are stored in the topology table including the route source (interface identifier), bandwidth, reliability, etc. for each path discovered by the router to that destination).

Regarding claim 4, EIGRP White Paper discloses that the detecting step includes detecting aggregation of the selected ones of the prescribed attributes of the first active link and the second active link for the respective selected ones of the prescribed attributes of the active path (see page 3, paragraph 2, the router collects and saves the information, and changes of information, on both links pertaining to the active path in the topology table, the table including all of the metrics required to calculate a successor and a feasible successor).

Regarding claim 5, EIGRP White Paper discloses that the detecting step includes detecting a change in any one of delay, bandwidth, allowable transmission unit size (MTU), hop count, reliability, and load as the prescribed attributes (see page 5, building the topology table, various metrics/attributes are tracked in the topology table and updated as they change).

Regarding claim 6, EIGRP White Paper discloses that the detecting step includes detecting a change in any one of delay, bandwidth, allowable transmission unit size (MTU), hop

count, reliability, and load as the prescribed attributes (see page 5, building the topology table, various metrics/attributes are tracked in the topology table and updated as they change).

Regarding claim 10, EIGRP White Paper discloses that the prescribed routing protocol is EIGRP (see page 3, paragraph 2).

Regarding claim 11, EIGRP White Paper discloses a router comprising a plurality of interfaces configured for establishing respective active links with at least a second router (see figure 1, router 1 has multiple interfaces connecting to multiple routers), a link associating resource configured for identifying an active path connected to the router based on at least first and second active links each connecting the router to a first neighboring router (see pages 2-3, EIGRP router builds a topology table from its neighbors' advertisements to determine an active path), a monitoring resource configured for monitoring prescribed attributes of the active path, the active path providing reachability by the router to a destination via the first neighboring router (see page 3, neighbor discovery and maintenance, the router waits for changes to the active path, thus monitoring the active paths) and routing protocol resource configured for outputting an update message, specifying the change, to a second router according to a prescribed routing protocol (see Neighbor Discovery and Maintenance, the EIGRP router sends a routing update message when a change is detected in the path).

EIGRP White Paper does not explicitly teach the monitoring resource detecting a change in at least one of the prescribed attributes of the connected active path.

However, the above-mentioned claimed limitation is well known in the art, as evidenced by Garcia-Luna-Aceves. In particular, Garcia-Luna-Aceves teaches detecting by the router a change in at least one of the prescribed attributes of the connected active path (see paragraph 32, lines 12-14, nodes detect changes in the links/paths).

In view of the above, having the method of EIGRP White Paper, then given the well-established teaching of Garcia-Luna-Aceves, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the method of EIGRP White Paper as taught by Garcia-Luna-Aceves, since Garcia-Luna-Aceves stated in paragraph 14 that loop-free multipaths would be constructed while giving collision free communications.

EIGRP White Paper and Garcia-Luna-Aceves do not explicitly teach that the change is distinct from and not changing an availability of the active path.

However, the above-mentioned claimed limitation is well known in the art, as evidenced by Yamato. In particular, Yamato teaches that the change is distinct from and not changing an availability of the active path (see column 2, lines 5-13, data flow is monitored against monitoring parameters to detect congestion on the data flow, and congestion does not indicate failure of a node which would be a parameter change not changing the availability of the active path/flow).

In view of the above, having the method of EIGRP White Paper, then given the well-established teaching of Yamato, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the method of EIGRP White Paper as taught by Yamato, since Yamato stated in column 1, lines 55-58 that service level is maintained for high priority services.

EIGRP White Paper, Garcia-Luna-Aceves and Yamato do not explicitly teach that the active links are at least first and second active links.

However, the above-mentioned claimed limitation is well known in the art, as evidenced by de Boer. In particular, de Boer teaches that the active links are at least first and second active links (see figure 1 and paragraph14, there are multiple links (i.e. 1:1 or 1:n protection links) connecting two nodes to each other).

In view of the above, having the method of EIGRP White Paper, Garcia-Luna-Aceves and Yamato, then given the well-established teaching of de Boer, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the method of EIGRP White Paper, Garcia-Luna-Aceves and Yamato as taught by de Boer, since de Boer stated that improved mesh network performance can be performed. Note that while de Boer teaches protection switching in response to failure of a link, the same method can be performed based on attributes of the link rather than availability of the link, as taught by Garcia-Luna-Aceves and Yamato in the combination above.

Regarding claim 12, EIGRP White Paper discloses that the router further comprises a topology table configured for storing entries, each entry identifying a destination and whether the corresponding destination is reachable (see page 3, paragraph 2, a router can determine at least one active path to the destination through another router), wherein the link associating resource is configured for associating the first active link connected to the router to the active path based on determining that the destination is reachable by the first active link, the link associating resource configured for storing in the topology table an entry that specifies the destination and a

corresponding at least one interface identifier for the first active link (see page 5, building topology table, each reachable network has an entry in the router's topology table including various metrics to identify the properties of that path).

Regarding claim 13, EIGRP White paper discloses that the link associating resource is configured for associating the second active link connected to the router to the active path based on determining that the destination is concurrently reachable by the first active link and the second active link (see page 3, paragraph 2, the best path is referred to as the successor, and another loop-free path is referred to as a feasible successor), and determining that the first active link and the second active link are configured for enabling aggregation (see page 3, paragraph 2, EIGRP router builds the topology table to collect the routing information from its neighbors); the link associating resource is configured for aggregating at least selected ones of the prescribed attributes of the first active link and the second active link for the respective selected ones of the prescribed attributes of the active path (see page 3, paragraph 2, the EIGRP router saves the information it received from both routers connected to each path, thus aggregating their attributes and saving this information for later use); the link associating resource is configured for storing in the entry in the topology table the prescribed attributes of the active path, and adding a second entry that specifies the destination, the interface identifier for the second active link, and the prescribed attributes of the active path (see pages 5-6, building topology table, various attributes are stored in the topology table including the route source (interface identifier), bandwidth, reliability, etc. for each path discovered by the router to that destination).

Regarding claim 14, EIGRP White Paper discloses that the monitoring resource is configured for detecting aggregation of the selected ones of the prescribed attributes of the first active link and the second active link for the respective selected ones of the prescribed attributes of the active path (see page 3, paragraph 2, the router collects and saves the information, and changes of information, on both links pertaining to the active path in the topology table, the table including all of the metrics required to calculate a successor and a feasible successor).

Regarding claim 15, EIGRP White Paper discloses that the monitoring resource is configured for detecting a change in any one of delay, bandwidth, allowable transmission unit size, hop count, reliability, and load as the prescribed attributes (see page 5, building the topology table, various metrics/attributes are tracked in the topology table and updated as they change).

Regarding claim 16, EIGRP White Paper discloses that the monitoring resource is configured for detecting a change in any one of delay, bandwidth, allowable transmission unit size, hop count, reliability, and load as the prescribed attributes (see page 5, building the topology table, various metrics/attributes are tracked in the topology table and updated as they change).

Regarding claim 20, EIGRP White Paper discloses that the routing protocol resource is configured for outputting the update message according to Enhanced Interior Gateway Routing Protocol (EIGRP) protocol as the prescribed routing protocol (see page 3, paragraph 2).

Regarding claim 21, EIGRP White Paper discloses a computer readable storage medium comprising instructions (see page 45, section "understanding EIGRP command output," commands can be entered by a user for controlling the node, thus can execute instructions initiated by the commands entered) for identifying by the router an active path connected to the router and including at least first and second active links each connecting the router to a first neighboring router (see pages 2-3, EIGRP router builds a topology table from its neighbors' advertisements to determine an active path), monitoring by the router prescribed attributes of the active path, the active path providing reachability by the router to a destination via the first neighboring router (see page 3, neighbor discovery and maintenance, the router waits for changes to the active path, thus monitoring the active paths) and outputting by the router an update message, specifying the change in the active path, to a second router in response to the detected change and according to a prescribed routing protocol (see Neighbor Discovery and Maintenance, the EIGRP router sends a routing update message when a change is detected in the path).

EIGRP White Paper does not explicitly teach detecting by the router a change in at least one of the prescribed attributes of the connected active path.

However, the above-mentioned claimed limitation is well known in the art, as evidenced by Garcia-Luna-Aceves. In particular, Garcia-Luna-Aceves teaches detecting by the router a change in at least one of the prescribed attributes of the connected active path (see paragraph 32, lines 12-14, nodes detect changes in the links/paths).

In view of the above, having the method of EIGRP White Paper, then given the well-established teaching of Garcia-Luna-Aceves, it would have been obvious to a person having

ordinary skill in the art at the time of the invention to modify the method of EIGRP White Paper as taught by Garcia-Luna-Aceves, since Garcia-Luna-Aceves stated in paragraph 14 that loop-free multipaths would be constructed while giving collision free communications.

EIGRP White Paper and Garcia-Luna-Aceves do not explicitly teach that the change is distinct from and not changing an availability of the active path.

However, the above-mentioned claimed limitation is well known in the art, as evidenced by Yamato. In particular, Yamato teaches that the change is distinct from and not changing an availability of the active path (see column 2, lines 5-13, data flow is monitored against monitoring parameters to detect congestion on the data flow, and congestion does not indicate failure of a node which would be a parameter change not changing the availability of the active path/flow).

In view of the above, having the method of EIGRP White Paper, then given the well-established teaching of Yamato, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the method of EIGRP White Paper as taught by Yamato, since Yamato stated in column 1, lines 55-58 that service level is maintained for high priority services.

EIGRP White Paper, Garcia-Luna-Aceves and Yamato do not explicitly teach that the active links are at least first and second active links.

However, the above-mentioned claimed limitation is well known in the art, as evidenced by de Boer. In particular, de Boer teaches that the active links are at least first and second active links (see figure 1 and paragraph14, there are multiple links (i.e. 1:1 or 1:n protection links) connecting two nodes to each other).

In view of the above, having the method of EIGRP White Paper, Garcia-Luna-Aceves and Yamato, then given the well-established teaching of de Boer, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the method of EIGRP White Paper, Garcia-Luna-Aceves and Yamato as taught by de Boer, since de Boer stated that improved mesh network performance can be performed. Note that while de Boer teaches protection switching in response to failure of a link, the same method can be performed based on attributes of the link rather than availability of the link, as taught by Garcia-Luna-Aceves and Yamato in the combination above.

Regarding claim 22, EIGRP White Paper discloses associating the first active link connected to the router to the active path based on determining that the destination is reachable by the first active link (see page 3, paragraph 2, a router can determine at least one active path to the destination through another router) and storing in a topology table an entry that specifies the destination and a corresponding at least one interface identifier for the first active link (see page 5, building topology table, each reachable network has an entry in the router's topology table including various metrics to identify the properties of that path).

Regarding claim 23, EIGRP White Paper discloses associating the second active link connected to the router to the active path based on determining that the destination is concurrently reachable by the first active link and the second active link (see page 3, paragraph 2, the best path is referred to as the successor, and another loop-free path is referred to as a feasible successor), determining that the first active link and the second active link are

configured for enabling aggregation (see page 3, paragraph 2, EIGRP router builds the topology table to collect the routing information from its neighbors), aggregating at least selected ones of the prescribed attributes of the first active link and the second active link for the respective selected ones of the prescribed attributes of the active path (see page 3, paragraph 2, the EIGRP router saves the information it received from both routers connected to each path, thus aggregating their attributes and saving this information for later use) and storing in the entry in the topology table the prescribed attributes of the active path, and adding a second entry that specifies the destination, the interface identifier for the second active link, and the prescribed attributes of the active path (see pages 5-6, building topology table, various attributes are stored in the topology table including the route source (interface identifier), bandwidth, reliability, etc. for each path discovered by the router to that destination).

Regarding claim 26, EIGRP White Paper discloses that the detecting step includes detecting a change in any one of delay, bandwidth, allowable transmission unit size, hop count, reliability, and load as the prescribed attributes (see page 5, building the topology table, various metrics/attributes are tracked in the topology table and updated as they change).

Regarding claim 30, EIGRP White Paper discloses that the prescribed routing protocol is EIGRP (see page 3, paragraph 2).

Regarding claim 31, EIGRP White Paper discloses a router comprising means for identifying an active path connected to the router and including at least first and second active

links each connecting the router to a first neighboring router (see pages 2-3, EIGRP router builds a topology table from its neighbors' advertisements to determine an active path), means for monitoring prescribed attributes of the active path, the active path providing reachability by the router to a destination via the first neighboring router (see page 3, neighbor discovery and maintenance, the router waits for changes to the active path, thus monitoring the active paths) and means for outputting an update message, specifying the change in the active path, to a second router in response to the detected change and according to a prescribed routing protocol (see Neighbor Discovery and Maintenance, the EIGRP router sends a routing update message when a change is detected in the path).

EIGRP White Paper does not explicitly teach means for detecting a change in at least one of the prescribed attributes of the connected active path.

However, the above-mentioned claimed limitation is well known in the art, as evidenced by Garcia-Luna-Aceves. In particular, Garcia-Luna-Aceves teaches detecting by the router a change in at least one of the prescribed attributes of the connected active path (see paragraph 32, lines 12-14, nodes detect changes in the links/paths).

In view of the above, having the method of EIGRP White Paper, then given the well-established teaching of Garcia-Luna-Aceves, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the method of EIGRP White Paper as taught by Garcia-Luna-Aceves, since Garcia-Luna-Aceves stated in paragraph 14 that loop-free multipaths would be constructed while giving collision free communications.

EIGRP White Paper and Garcia-Luna-Aceves do not explicitly teach that the change is distinct from and not changing an availability of the active path.

However, the above-mentioned claimed limitation is well known in the art, as evidenced by Yamato. In particular, Yamato teaches that the change is distinct from and not changing an availability of the active path (see column 2, lines 5-13, data flow is monitored against monitoring parameters to detect congestion on the data flow, and congestion does not indicate failure of a node which would be a parameter change not changing the availability of the active path/flow).

In view of the above, having the method of EIGRP White Paper, then given the well-established teaching of Yamato, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the method of EIGRP White Paper as taught by Yamato, since Yamato stated in column 1, lines 55-58 that service level is maintained for high priority services.

EIGRP White Paper, Garcia-Luna-Aceves and Yamato do not explicitly teach that the active links are at least first and second active links.

However, the above-mentioned claimed limitation is well known in the art, as evidenced by de Boer. In particular, de Boer teaches that the active links are at least first and second active links (see figure 1 and paragraph14, there are multiple links (i.e. 1:1 or 1:n protection links) connecting two nodes to each other).

In view of the above, having the method of EIGRP White Paper, Garcia-Luna-Aceves and Yamato, then given the well-established teaching of de Boer, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the method of EIGRP White Paper, Garcia-Luna-Aceves and Yamato as taught by de Boer, since de Boer stated that improved mesh network performance can be performed. Note that while de Boer

teaches protection switching in response to failure of a link, the same method can be performed based on attributes of the link rather than availability of the link, as taught by Garcia-Luna-Aceves and Yamato in the combination above.

Regarding claim 32, EIGRP White Paper discloses associating the first active link connected to the router to the active path based on determining that the destination is reachable by the first active link (see page 3, paragraph 2, a router can determine at least one active path to the destination through another router) and storing in a topology table an entry that specifies the destination and a corresponding at least one interface identifier for the first active link (see page 5, building topology table, each reachable network has an entry in the router's topology table including various metrics to identify the properties of that path).

Regarding claim 33, EIGRP White Paper discloses associating the second active link connected to the router to the active path based on determining that the destination is concurrently reachable by the first active link and the second active link (see page 3, paragraph 2, the best path is referred to as the successor, and another loop-free path is referred to as a feasible successor), determining that the first active link and the second active link are configured for enabling aggregation (see page 3, paragraph 2, EIGRP router builds the topology table to collect the routing information from its neighbors), aggregating at least selected ones of the prescribed attributes of the first active link and the second active link for the respective selected ones of the prescribed attributes of the active path (see page 3, paragraph 2, the EIGRP router saves the information it received from both routers connected to each path, thus

aggregating their attributes and saving this information for later use) and storing in the entry in the topology table the prescribed attributes of the active path, and adding a second entry that specifies the destination, the interface identifier for the second active link, and the prescribed attributes of the active path (see pages 5-6, building topology table, various attributes are stored in the topology table including the route source (interface identifier), bandwidth, reliability, etc. for each path discovered by the router to that destination).

Regarding claim 34, EIGRP White Paper discloses that the detecting means is configured for detecting aggregation of the selected ones of the prescribed attributes of the first active link and the second active link for the respective selected ones of the prescribed attributes of the active path (see page 3, paragraph 2, the router collects and saves the information, and changes of information, on both links pertaining to the active path in the topology table, the table including all of the metrics required to calculate a successor and a feasible successor).

Regarding claim 35, EIGRP White Paper discloses that the detecting means is configured for detecting a change in any one of delay, bandwidth, allowable transmission unit size, hop count, reliability, and load as the prescribed attributes (see page 5, building the topology table, various metrics/attributes are tracked in the topology table and updated as they change).

Regarding claim 36, EIGRP White Paper discloses that the detecting means is configured for detecting a change in any one of delay, bandwidth, allowable transmission unit size, hop

count, reliability, and load as the prescribed attributes (see page 5, building the topology table, various metrics/attributes are tracked in the topology table and updated as they change).

Regarding claim 40, EIGRP White Paper discloses that the prescribed routing protocol is EIGRP (see page 3, paragraph 2).

Regarding claims 41-44, EIGRP White Paper does not explicitly teach that the detecting of the change in at least one of the prescribed attributes of the active path is based on a detecting a change in a link attribute in any one of the first active link or the second active link, the change in the link attribute distinct from availability of the corresponding active link.

However, the above-mentioned claimed limitation is well known in the art, as evidenced by Garcia-Luna-Aceves. In particular, Garcia-Luna-Aceves teaches that the detecting of the change in at least one of the prescribed attributes of the active path is based on a detecting a change in a link attribute in any one of the first active link or the second active link, the change in the link attribute distinct from availability of the corresponding active link (see paragraph 50 and figure 3b, paths between two nodes comprising 2 links, when there's a detected change in the link table, it is compared with the neighboring link tables, the changes create conflicting information, where the information may be link attributes such as distance, the attributes do not change the availability of the link but the link's cost).

In view of the above, having the method of EIGRP White Paper, then given the well-established teaching of Garcia-Luna-Aceves, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the method of EIGRP White Paper

as taught by Garcia-Luna-Aceves, since Garcia-Luna-Aceves stated in paragraph 14 that loop-free multipaths would be constructed while giving collision free communications.

4. Claims 7-8, 17-18, 27 and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over EIGRP White Paper in view of Garcia-Luna Aceves '720, Yamato and de Boer as applied to claims 6, 16, 26 and 36 above, and further in view of Doviak et al. (previously cited US 6,198,920).

Regarding claim 7, EIGRP White Paper does not explicitly teach that the detecting step further includes obtaining information associated with at least one of the prescribed attributes of the first active link from an executable driver resource configured for controlling an interface configured for establishing the first active link.

However, the above-mentioned claimed limitation is well known in the art, as evidenced by Doviak. In particular, Doviak teaches that the detecting step further includes obtaining information associated with at least one of the prescribed attributes of the first active link from an executable driver resource configured for controlling an interface configured for establishing the first active link (see column 33, lines 58-66, an interface driver is what connects the router to the network, and all information, including various metrics, well be sent on a preferred path using these network interfaces).

In view of the above, having the method of EIGRP White Paper and Yamato, then given the well-established teaching of Doviak, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the method of EIGRP White Paper and

Yamato as taught by Doviak, since Doviak stated in column 4, lines 45-52 that it provides flexibility in use of portable devices.

Regarding claim 8, EIGRP White Paper teaches that metrics available to the router include bandwidth, reliability, load, and allowable transmission unit size (see page 5, building topology table).

Regarding claim 17, EIGRP White paper does not explicitly teach that the monitoring resource is configured for obtaining information associated with at least one of the prescribed attributes of the first active link from an executable driver resource configured for controlling at least one of the interfaces.

However, the above-mentioned claimed limitation is well known in the art, as evidenced by Doviak. In particular, Doviak teaches that the monitoring resource is configured for obtaining information associated with at least one of the prescribed attributes of the first active link from an executable driver resource configured for controlling at least one of the interfaces (see column 33, lines 58-66, an interface driver is what connects the router to the network, and all information, including various metrics, well be sent on a preferred path using these network interfaces).

In view of the above, having the method of EIGRP White Paper and Yamato, then given the well-established teaching of Doviak, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the method of EIGRP White Paper and

Yamato as taught by Doviak, since Doviak stated in column 4, lines 45-52 that it provides flexibility in use of portable devices.

Regarding claim 18, EIGRP White paper teaches that the information includes any one of the bandwidth, the reliability, the load and the allowable transmission unit size (see page 5, building topology table, MTU).

Regarding claim 27, EIGRP White Paper does not explicitly teach that the detecting step further includes obtaining information associated with at least one of the prescribed attributes of the first active link from an executable driver resource configured for controlling an interface configured for establishing the first active link.

However, the above-mentioned claimed limitation is well known in the art, as evidenced by Doviak. In particular, Doviak teaches that the detecting step further includes obtaining information associated with at least one of the prescribed attributes of the first active link from an executable driver resource configured for controlling an interface configured for establishing the first active link (see column 33, lines 58-66, an interface driver is what connects the router to the network, and all information, including various metrics, well be sent on a preferred path using these network interfaces).

In view of the above, having the method of EIGRP White Paper and Yamato, then given the well-established teaching of Doviak, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the method of EIGRP White Paper and

Yamato as taught by Doviak, since Doviak stated in column 4, lines 45-52 that it provides flexibility in use of portable devices.

Regarding claim 37, EIGRP White Paper does not explicitly teach that the detecting means is configured for obtaining information associated with at least one of the prescribed attributes of the first active link from an executable driver resource configured for controlling an interface configured for establishing the first active link.

However, the above-mentioned claimed limitation is well known in the art, as evidenced by Doviak. In particular, Doviak teaches that the detecting means is configured for obtaining information associated with at least one of the prescribed attributes of the first active link from an executable driver resource configured for controlling an interface configured for establishing the first active link (see column 33, lines 58-66, an interface driver is what connects the router to the network, and all information, including various metrics, well be sent on a preferred path using these network interfaces).

In view of the above, having the method of EIGRP White Paper and Yamato, then given the well-established teaching of Doviak, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the method of EIGRP White Paper and Yamato as taught by Doviak, since Doviak stated in column 4, lines 45-52 that it provides flexibility in use of portable devices.

Regarding claim 38, EIGRP White Paper discloses that the information includes any one of the bandwidth, the reliability, the load and the allowable transmission unit size (see page 5, building topology table, MTU).

5. Claims 9, 19, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over EIGRP White Paper in view of Garcia-Luna Aceves '720, Yamato and de Boer as applied to claims 6, 16, 26 and 36, and further in view of Graf et al. (previously cited US 7,016,355).

Regarding claim 9, EIGRP White Paper and Yamato do not explicitly teach that the detecting step includes determining delay based on measuring a time between transmitting a data packet onto the one link and receiving a response to the data packet on the one link.

However, the above-mentioned claimed limitation is well known in the art, as evidenced by Graf. In particular, Graf teaches the detecting step includes determining delay based on measuring a time between transmitting a data packet onto the one link and receiving a response to the data packet on the one link (see abstract, propagation delay can be measured on a packet switched network by calculating the time elapsed between sending the packet and receiving an echo packet acknowledging receipt of that packet).

In view of the above, having the method of EIGRP White Paper and Yamato, then given the well-established teaching of Graf, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the method of EIGRP White Paper and Yamato as taught by Graf, since Graf stated that propagation delay must be dynamically determined.

Regarding claim 19, EIGRP White Paper and Yamato do not explicitly teach a delay measurement resource configured for determining the delay based on measuring a time between transmitting a data packet onto the one link and receiving a response to the data packet via the one link, the delay measurement resource reporting the determined delay to the monitoring resource.

However, the above-mentioned claimed limitation is well known in the art, as evidenced by Graf. In particular, Graf teaches a delay measurement resource configured for determining the delay based on measuring a time between transmitting a data packet onto the one link and receiving a response to the data packet via the one link, the delay measurement resource reporting the determined delay to the monitoring resource (see abstract, propagation delay can be measured on a packet switched network by calculating the time elapsed between sending the packet and receiving an echo packet acknowledging receipt of that packet).

In view of the above, having the method of EIGRP White Paper and Yamato, then given the well-established teaching of Graf, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the method of EIGRP White Paper and Yamato as taught by Graf, since Graf stated that propagation delay must be dynamically determined.

Regarding claim 39, EIGRP White Paper and Yamato do not explicitly teach that the detecting means is configured for determining the delay based on measuring a time between

transmitting a data packet onto the one link and receiving a response to the data packet via the one link.

However, the above-mentioned claimed limitation is well known in the art, as evidenced by Graf. In particular, Graf teaches that the detecting means is configured for determining the delay based on measuring a time between transmitting a data packet onto the one link and receiving a response to the data packet via the one link (see abstract, propagation delay can be measured on a packet switched network by calculating the time elapsed between sending the packet and receiving an echo packet acknowledging receipt of that packet).

In view of the above, having the method of EIGRP White Paper and Yamato, then given the well-established teaching of Graf, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the method of EIGRP White Paper and Yamato as taught by Graf, since Graf stated that propagation delay must be dynamically determined.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Curtis A. Alia whose telephone number is (571) 270-3116. The examiner can normally be reached on Monday through Friday, 9am-6pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung S. Moe can be reached on (571) 272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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12/19/2008

CAA